

MARKETING ASPECTS OF PRODUCTION ADJUSTMENTS
IN THE SOUTH

by

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"Live at home," "diversification," and "balanced farming" are terms familiar to southern agricultural workers. Self-sufficiency has been an established goal for southern farmers since ante-bellum days. During the lean years of reconstruction following the Civil War "live at home" was the only practical answer to the problems of the day. The old South had been devastated and the newer areas west of the Mississippi were yet to be fully developed. The plantation owner, the poor white farmers, and the freed negro all found themselves in an economic position that called for subsistence on the land.

The one-crop farming systems that grew out of the developments brought about by the rebuilding of the South later became the number one ill of southern agriculture. The fruits of the system reached full maturity in the early nineteen thirties when we realized that the trend of soil destruction through erosion and poor farming practices had to be reversed. The backbone of southern agriculture had been cotton, tobacco, and peanuts. The world-wide depression that started in 1929 resulted in the drying up of purchasing power, shrinkage in market outlets, and low prices that were reminiscent of the dark days of the South after the Civil War. At this low ebb of economic activity the South found itself with soils depleted in fertility, denuded forest lands, low income, and abject poverty. The South was dubbed the Nation's economic problem.

Since 1919 we have seen a complete economic cycle in southern agriculture. World War I brought prosperity to the South such as had never before been achieved. World War II has carried us to a new high. We now look to the future with the great question: Will it happen again? What made the difference between 1919, 1932, and 1946? The answer is purchasing power and market outlets. We now know from personal observation what full employment and purchasing power mean to the southern farmer. The problem is: How do we retain high-level economic activity and furnish the people of this country the opportunity to utilize the output of our farms and factories?

ADJUSTMENT A CONTINUOUS PROCESS

The theme of this afternoon's program is production adjustments to improve farming opportunities in the South. Since we now look to the dawning postwar period with emphasis on further adjusting farm production, we should pause for a moment to take our bearings.

During the years from 1914 to 1920 farmers in the South went through a period of production adjustment. Farm prices were generally good for almost all commodities. Livestock production was greatly expanded. Cotton production declined because of the closing of the foreign market during the war. Peanut acreage increased to meet war needs. The ranges in the great Southwest were plowed up to provide wheat to feed the armies of Europe and to rehabilitate the devastated countries at that time. During these years it looked as though the South was making real progress toward diversification. After the war and the return of normal food production in Europe, however, the scene shifted rapidly. Livestock prices fell, and the southern farmer returned to the major cash crop, cotton, as the major source of cash income.

THE COTTON STATES DIVERSIFY

In 1924 the total cash income from the sale of farm products in the 10 leading cotton States was 2.6 billion dollars. Of this sum 61 percent was derived from cotton and cottonseed, 21 percent from other crops, and 18 percent from livestock and livestock products. In 1932 total cash income had declined to 0.99 billion dollars. At this low point in the depression, cotton accounted for 44 percent, other crops 27 percent, and livestock 29 percent of the total cash farm income. During the years 1933 to 1939 the percentage of total cash income from cotton, including Government payments, ranged from a high of 50 percent in 1934 to a low of 33 percent in 1939. In 1940, with a cash income of almost 2 billion dollars, the 10 major cotton States obtained 34 percent from cotton, 25 percent from other crops, and 41 percent from livestock. By 1945, cash income from the sale of all farm products, including Government payments, in these States rose to 4.4 billion dollars. According to sources, 22 percent came from cotton, 38 percent from other crops, and 40 percent from livestock. Although these figures do not fully reflect the adjustments in the physical volume of marketings, they do show conclusively that the income of farmers in the 10 cotton States has become progressively more diversified. During the 22 years from 1924 to 1945 the percentage of cash income derived from cotton and cottonseed in these States fell from 61 to 22 percent. Most of the total decline of 39 percent occurred prior to 1940.

FARM POPULATION DECLINES

Another important adjustment that has taken place concurrently with the shifts in sources of income has been the downward trend in farm population. In 1924, the estimated farm population in the 10 leading cotton States was 13.2 million persons. By 1930 the number of people living on farms was down to slightly over 13 million. The depression of the early thirties resulted in a back-to-the-land movement, and farm population rose to a peak of 13.6 million in 1933. Since that time there has been a steady decline. On January 1, 1939, the estimated farm population had fallen to about 13 million, the lowest point since 1924. The downward trend was accelerated during the war and on January 1, 1945, the estimate was 10.2 million. This reduction in farm population represents a net decline of 23 percent during the 22 years 1924 to 1945. Along with this decline in population there has been a relative increase in per capita farm income and an expansion in the volume of marketings.

The Growth of Industry

Aside from the adjustments in farm production, shifts in sources of income, and the reduction in the number of persons engaged in agriculture, there has been a significant growth in urban population and industry. This has been a healthy adjustment and has contributed toward the trend to greater commercialization of farming. The growth of industry in the South was greatly stimulated during the war. Although some of the expansion was in the production of the implements of war, it appears that much of the gain will be permanent.

Farming Becomes Commercialized

In the early days of American agriculture, self-sufficiency was the most important aspect of farming. Much has been said and written about these days when the farmer lived on the fruits of his labor within the bounds of his own holdings. Even in colonial times the farmer was not entirely self-sustaining. At first, tobacco and naval stores were significant items in trade with England and other European countries. Later, cotton became an important item in trade, and the farmers of the South built the pre-Civil War plantation economy on this basis. By 1870 only 50 percent of the total workers in the United States were engaged in farming. Today less than one-fifth of the total working population of the United States is needed

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to produce all the food and fiber that the whole Nation uses and a considerable surplus of many products for sale to foreign countries.

Shepherd, in his book Marketing Farm Products, analyzes the degree of self-sufficiency of American agriculture on the basis of income in 1940, the last representative prewar year. The total income of farmers from all sources, both farm and nonfarm, including the value of products produced and consumed and the calculated rental value of farm dwellings, was 13.3 billion dollars. Of this total 84.3 percent was derived from the sale of farm products, Government payments, and nonfarm sources. Shepherd's conclusion is that farmers in modern times are dependent upon conditions outside their fences for nearly 85 percent of their income. This trend in commercialized farming has made the farmers of this Nation even more dependent upon market outlets for their welfare.

Production Becomes More Efficient

The significant wartime development in southern farming has been the improvement in production efficiency and the decrease in man-labor requirements. The trend of mechanization and technological development has been in process over a long period of time. Since 1870 there has been a tremendous growth in agricultural production and productivity per worker in the United States. Using 1870 as the base of 100, the index of agricultural production had risen to 378 by 1940, as compared with a rise in the index of total population to 341. The index of productivity per farm worker rose from 100 in 1870 to 228 in 1940. Over the same period the index of the farm labor force rose from 100 to a high of 169 in 1910, and after that time declined to 134 in 1940.

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This trend in expanding production and improvement in efficiency has been brought about through a combination of factors. Improvement in breeds and varieties of plants and animals, better farm machinery, improved cultural practices, better methods of fertilizing, and the control of insects and diseases have all contributed to this achievement.

The South has done much to improve its productive capacity through all these advances, but it is now standing on the threshold of another production revolution. As the known developments in technology are put into general practice, production can be much further expanded and at the same time require less manpower.

Although great progress has been made in solving the southern farmers' problems of production, much remains to be done in this field. There are still too many small, inefficiently operated farms. The problem of soil conservation is a long way from being solved. The man-land ratio is still higher than in the other farming areas of the country. Per capita income is still relatively low. Research and experience in the field of production, however, show that these problems can be solved if we utilize the knowledge that we have. The big question that confronts us all is markets. Will the market be there? The answer to this question depends upon the maintenance of a high level of economic activity and sufficient purchasing power distributed throughout the population to make it possible for the people of this country to buy the foods and fibers they need and want at prices that will cover the costs of production and marketing.

Demand for Farm Products

The great bulk of the farm products grown in the United States is consumed in the United States. The South, however, has a great interest in the foreign market, because a large part of the Nation's farm exports have traditionally come from this area. Cotton and tobacco have been the big items. Since 1929, the export sales of these commodities have fallen off drastically. During the 5-year period 1925-29
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about 8.5 million bales of cotton and a little over 600 million pounds of tobacco were exported from this country. From 1935-39 the annual average was 5.6 million bales of cotton and 457 million pounds of tobacco. What will be the volume of exports of these commodities in the postwar period when the world has resumed a normal pattern of production? The Bureau of Agricultural Economics in its publication, *What Peace Can Mean to American Farmers*, makes some estimates of what exports might be on the basis of a series of assumptions associated with full employment. The figures arrived at on this basis give estimates of 4.5 million bales of cotton and 440 million pounds of tobacco going into export trade. These estimates are based on favorable economic conditions. If actual experience does not come up to the assumptions, we might well find these quantities too high. The rise in the production of cotton and flue-cured tobacco in countries other than the United States has shown that we may expect competition in foreign markets for these commodities. In looking ahead to prospective demand and market outlets for commodities that can be produced in the South, the domestic market appears to offer the greatest opportunity.

There are now approximately 140 million people in the United States. By 1955 the number may reach 149 million. With the increase in wartime marriages and an increasing birth rate, total population will go higher before we reach a stable position. The total food bill for the Nation in 1944 was 30.4 billion dollars. This amount happened to be exactly twice the average annual food bill during the years 1935-39. Total consumer income was 160.9 billion dollars. The total food bill, therefore, represented nearly 20 percent of consumer income.

The per capita consumption of food in the United States has remained almost constant over the past 35 years at about 5 pounds per person per day. From 1909 to 1939 the average consumption was 4.96 pounds, as compared with 4.91 pounds during the years 1935-39. Over this period per capita consumption rose only slightly and showed but little variation from year to year. In no year did consumption rise above 5.18 pounds or decline below 4.69 pounds. The rise in consumer income during the war, especially among the prewar low-income groups, resulted in an increase in average per capita consumption. In 1944, average food consumption was about 10 percent above the 1935-39 average. It should be recognized, however, that wartime consumption was held in check because of high military requirements and general food rationing. The available civilian purchasing power would probably have brought about a larger increase if there had been no restrictions on civilian supplies.

The apparent stability in the average per capita consumption of food, however, does not tell the whole story. Significant changes have occurred in different kinds of food. From 1909-13 to 1940-44 per capita consumption of fruits and vegetables increased 40 percent. Dairy products increased 25 percent. Fats and oils, exclusive of butter, went up 15 percent. Consumption of eggs fluctuated cyclically but showed no permanent upward trend. Meats, poultry, and fish as a group, declined about 10 percent. The amount of grain products consumed per person dropped about 25 percent and potatoes and sweetpotatoes about 30 percent. Although the physical volume of per capita total food consumption has not changed very much, the shifts between given commodities has resulted in nutritional improvement of the average diet.

Analysis of per capita consumption of food by income groups of the population shows a wide variation in the eating habits of people as related to their money incomes. According to data from the Department of Agriculture for the year 1941, people with higher incomes eat more food than people with low incomes. The high-income groups eat three or four times as much fruit and two to three times as much meat, eggs, and dairy products as the low-income groups.

The data on the quantity of food consumed per capita relative to money income show that volume increases about 0.2 as much as income increases. The ratio of expenditure for food to increasing income is about 0.4. This means that a person with

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twice as much income as another person will eat 20 percent more food in volume and will pay 40 percent more money for it. It thus appears that the chief reason for variation in food consumption is differences in money incomes.

Analysis of the relation of food consumption and income levels of the population shows that most people in the United States are not getting as much food as they would like to eat, largely because they do not have the money to buy it. The nutritional adequacy of the national diet has been estimated by the Bureau of Agricultural Economics in terms of moderate diet standards recommended by the Bureau of Home Economics and Human Nutrition. Using 1941 as the base diet level the percentage of nutritional adequacy varies widely for the different foods and income levels. In the case of milk the percentage of adequacy ranges from 28 for the under \$500 income class to 78 for the \$5,000 and over class. The consumption of tomatoes and citrus fruits does not attain the level of nutritional adequacy until the \$1,500 to \$2,000 income class is reached. None of the income groups achieved nutritional adequacy in the consumption of leafy, green and yellow vegetables. The percentage ranged all the way from 75 percent for the lowest income class to 26 percent for the group with incomes above \$5,000. Consumption of eggs was below adequate requirements for all income classes below \$1,500. The 1941 consumption of meat, poultry, and fish was adequate or better for all income classes from \$1,000 up. In terms of nutritional needs there is an enormous potential increase in the volume of consumption of milk, tomatoes, citrus fruits, vegetables, and eggs. If all income classes now eating below an adequate diet level were raised to an adequate level, and the groups already consuming adequate or above adequate diets were maintained at present levels, there would be room for a tremendous expansion in food production. When we consider that in 1942 between one-fourth and one-third of the families and individuals in the United States had net incomes of less than \$1,000 and that the South has a high proportion of the low-income people of the Nation, we realize the importance of adequate nutritional standards to the problems of adjustments and markets in southern agriculture.

The potential demand and outlook for expanded consumption of nonfood crops in the South do not appear to be as great as for food crops and livestock. Cotton, the most important cash crop, has declined about 35 percent in production since the beginning of the war. With a return of normal farm operations in the postwar period, cotton production is expected to increase. Whether or not acreage and production will expand to or above prewar levels depends upon prices, export markets, trends in consumption, new uses, and the general level of economic activity. The prospects for maintaining tobacco production at or near present high levels are encouraging if we continue to have high level employment and growing export outlets.

The future of agriculture in the South is dependent upon sustained prosperity that will permit the full development of the home market as well as the foreign market. Production adjustments that will contribute to this end fortunately will also aid in the achievement of a more efficient agriculture, better soil conservation, and a better level of living for the South and for the rest of the Nation.

Future Adjustments in Production and Marketing

Mr. Sayre has outlined for us this afternoon possible production adjustments to improve farming opportunities in the South.^{1/} Mr. Meek has ably discussed the existing developments and progress in mechanizing southern agriculture. Both the

^{1/} Based on the study "Production Adjustments To Improve Farming Opportunities in the South," prepared under the direction of a South-wide Committee of representatives of the agricultural experiment stations of North Carolina, South Carolina, Georgia, Tennessee, Mississippi, Louisiana, Arkansas, Texas, Oklahoma, and the U. S. Department of Agriculture.

adjustment opportunities and the further expansion in mechanization are aimed at attaining a higher level of production efficiency and obtaining adequate incomes for the farmers of the South.

The possible adjustments to obtain this high level of efficiency are based on favorable assumptions with respect to demand, market outlets, and prices. If the country so manages its economy as to realize a sustained national income of 160 billion dollars, and if employment is maintained at the assumed levels, the South will be in position to move toward the desirable objectives.

It is not the purpose of this discussion to question the assumptions on which the opportunities for adjustments and achievement of production efficiency are based. We might take a pessimistic attitude toward the stabilization of our national economy at such high levels as would alter the production pattern that has been laid out.

Let us now turn to the marketing problems that would arise from the attainment of the pattern of production that has been outlined in the study "Production Adjustments To Improve Farming Opportunities in the South." The volumes of production and marketing that would result from an efficient agriculture in the Cotton Belt have been determined on the basis of two cotton price and production situations -- a free market with no price supports or acreage restrictions and a supported market at parity prices and acreage quotas.

Under competitive conditions for cotton according to the study, there would be significant increases in the volume of all commodities for market except peanuts. In comparison with 1943 production, cotton marketings would increase 13 percent. For all other commodities the increases would range from 25 percent for chickens to 144 percent for milk. Hogs for market would rise 72 percent, beef and veal 34 percent, and eggs 38 percent. There would be 33 percent more sweetpotatoes, 55 percent more fresh vegetables, and 25 percent more processed vegetables. Broilers for market would increase 30 percent and turkeys 29 percent. Flue-cured tobacco would exceed 1943 marketings by 64 percent. Peanuts, the only important crop that would not be marketed in quantities larger than were marketed in 1943, would decline only 6 percent.

Under the parity situation for cotton, the study indicates the volume of marketings for cotton and seed would decline 47 percent below 1943. All other commodity groups would increase above the 1943 level to even a greater extent than is the case under competitive cotton conditions. In the order of percentage increase over 1943, the different commodity groups would be as follows: Milk 164 percent, hogs 105 percent, flue-cured tobacco 67 percent, fresh vegetables 53 percent, sweetpotatoes 50 percent, beef and veal 46 percent, eggs 45 percent, turkeys 36 percent, processed vegetables 35 percent, chickens 34 percent, broilers 32 percent, and peanuts 5 percent.

These figures indicate in definite terms the size of the marketing job that would result from the suggested pattern of production adjustments.

Let us examine the marketing problems first for cotton. If marketings should stabilize at about 14.5 million bales as is indicated under competitive price conditions, no difficult physical marketing problems would arise. Although the ginning, compressing, warehousing, and oil extraction facilities for the belt as a whole are sufficient to handle a larger volume, there has already been some deterioration because of the smaller crops in recent years. The only real problems would occur in those areas that would go out of cotton production. This would entail some loss but would not be too serious. If marketings of cotton and cottonseed should drop to 6 or 7 million bales; as is assumed under parity price and production control conditions, there would have to be a major shrinkage and readjustment in cotton marketing facilities.

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ties. In many individual areas there would be heavy abandonment of ginning facilities, warehouse space would have to be converted and marketing practices drastically changed. In the areas that would either go out of cotton or sharply curtail production the smaller volumes would increase unit marketing costs and reduce competition in the local markets.

The over-all marketing situation for peanuts would not be materially changed. There would, however, have to be some expansion in existing facilities and development of new facilities in some local subregional areas.

The real problems would be encountered in the expansion and development of an efficient marketing structure for livestock, livestock products, and fruits and vegetables. The present marketing system is entirely inadequate to handle the assumed increase in marketings of these products. Fairly efficient marketing machinery is now available in some local areas with concentrated production of these commodities, but even in these areas much improvement is needed.

One of the most important marketing aspects of production adjustments, as outlined for the Cotton Belt, is the location and concentration of production. If the increase in production should be spread generally throughout the region, the marketing problems would be most difficult, if not impossible. For example, if egg production should rise 45 percent uniformly on southern farms, it would be difficult to establish an efficient marketing system. The problem of location and concentration of milk production would be even greater. An increase of milk marketing in the Cotton Belt 164 percent above 1943 involves serious marketing considerations. The requirements for efficient milk marketing are different for fluid milk and for butter making and other processing. It would be to the advantage of the farmer to expand fluid milk marketing to the maximum extent in line with available market outlets. This calls for concentration and expansion around the large consuming centers and development of means of exploiting the market in the smaller towns and cities.

The doubling of hog production and marketings involves problems of slaughtering processing, and distribution that would call for intelligent planning and development. The same is true for sweetpotatoes and vegetables for fresh market and processing.

Marketing costs and charges are an important aspect of the problem. The prices used in this study were based on a national appraisal of demand and prices and then adjusted to Cotton Belt conditions on the basis of historical trends. For most of the commodities in which significant expansion is indicated the South has a deficit in production. As the picture changes, and local production more nearly approaches consumption in the subregions, we may find that some readjustment will occur in past price relationships. The whole question of interregional competition will have to be fitted into the new setting. If efficiency and low unit costs of marketing cannot be attained early in the adjustment period, farmers may find that high costs will eat into the prices and net returns that we would expect from the adjusted production pattern.

The question of quality and grades of products is another very important aspect of the marketing problems. The quality of products in the South has not kept pace with consumer demands and efficient marketing except in the case of the major items and in some local areas producing specialized products for shipment to distant markets. If the farmers are to market successfully the volumes of commodities indicated for an efficient agriculture in the South, there will have to be a big improvement in quality.

As big as the marketing problems would be they are not by any means hopeless. We can make the adjustments if the consumer purchasing power and market outlets are

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there as we have assumed. To perform the job successfully we must have wise planning and development. There will have to be a lot of research in the field of marketing on which to develop an efficient system of facilities and services. The question of the size of plant in relation to location and concentration of production will have to be answered or many failures will be the result.

Along with sound research and planning will have to go an adequate educational program. It is not a simple task to convert cotton farmers to poultry producers, dairymen, hog raisers, and vegetable producers overnight. This is a major obstacle in attaining the adjustments in production as well as marketing. Attainment of the goal of efficient agricultural production and marketing in the South will require sound research, wise planning, and full cooperation of farmers, marketing agencies, and the agricultural leadership. The major responsibility for this leadership rests with the land-grant colleges and the U. S. Department of Agriculture through the systems of cooperative research, extension, and action programs.

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